CLAIMS

1. A method for testing a battery pack of an electric or hybrid vehicle, the battery pack comprising a plurality of batteries, including the steps of:

(a) measuring a first parameter of each battery of the battery pack;

(b) selecting the first parameter value of a particular battery of the battery pack;

(c) determining an average first parameter value of the remaining batteries of the battery pack;

(d) determining a resultant value as a function of the isolated first parameter and the average first parameter value of the remaining batteries;

(e) providing an alert signal if the resultant value is not within a predetermined range; and

(f) repeating (b) through (e) for other batteries in the battery pack.

2. The method of claim 1, wherein the first parameter is battery conductance.

3. The method of claim 1, wherein the first parameter is battery impedance.

4. The method of claim 1, further including the step of recording the resultant value of a particular battery comparison.

5. The method of claim 1, wherein the resultant value is the difference between the first parameter of a particular battery and the average first parameter value of the remaining batteries.

6. The method of claim 1, wherein the alert signal is an audible signal.

7. The method of claim 1, wherein the alert signal is a visual signal.

8. The method of claim 7, wherein the visual signal includes a light.

9. The method of claim 7, wherein the visual signal is shown on a display screen.

10. A battery management system for managing a battery pack of an electric or hybrid vehicle, the battery pack including a plurality of batteries, the battery management system including:

a first interface component in electrical communication with the battery pack;

a second interface component in selective electrical communication with the first interface component;

a circuit in electrical communication with the second interface component, the circuit adapted to measure a first parameter of each of the batteries of the battery pack and to compare the first parameter of a particular battery to the first parameter of the remaining batteries; and

an output for signaling an operator if a result of the respective first parameters are not within a predetermined range.

11. The battery management system of claim 10, wherein the first parameter is battery conductance.

12. The battery management system of claim 10, wherein the first parameter is battery impedance.

13. The battery management system of claim 10, wherein the result of the first parameter comparison is recorded for each particular battery.

14. The battery management system of claim 10, wherein the circuit further includes:

a micro-processor;

a memory in electrical communication with the micro-processor;

an input in electrical communication with the micro-processor; and

an output in electrical communication with the microprocessor.

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15. The battery management system of claim 14, wherein said input includes a keyboard.

16. The battery management system of claim 14, wherein said input includes a touch screen.

17. The battery management system of claim 14, wherein said output includes a display.

18. The battery management system of claim 10, wherein the battery management system is selectively in communication with a computer unit.

19. The battery management system of claim 10, wherein the battery management system is selectively in communication with a network.

20. A method for testing a battery pack of an electric or hybrid vehicle, the battery pack comprising a plurality of batteries, including the steps of:

(a) measuring a first parameter, defined as one of battery conductance or battery impedance, of each battery of the battery pack;

(b) selecting the first parameter value of a particular battery of the battery pack;

(c) determining an average first parameter value of the remaining batteries of the battery pack;

(d) determining a resultant value as a function of the isolated first parameter and the average first parameter value of the remaining batteries;

(e) providing an alert signal if the resultant value is not within a predetermined range; and

(f) repeating (b) through (e) for other batteries in the battery pack.

21. The method of claim 20, further including the step of recording the resultant value of a particular battery comparison.

22. The method of claim 20, wherein the resultant value is the difference between the first parameter of a particular battery and the average first parameter value of the remaining batteries.

23. A battery management system for managing a battery pack of an electric or hybrid vehicle, the battery pack including a plurality of batteries, the battery management system including:

a first interface component in electrical communication with the battery pack;

a second interface component in selective electrical communication with the first interface component;

a circuit in electrical communication with the second interface component, the circuit adapted to measure a first parameter, defined as one of battery conductance and battery impedance, of each of the batteries of the battery pack and to compare the first parameter of a particular battery to the first parameter of the remaining batteries; and

an output for signaling an operator if a result of the respective first parameters are not within a predetermined range.

24. The battery management system of claim 10, wherein the result of the first parameter comparison is recorded for each particular battery.

25. A battery management system for managing a battery pack of an electric or hybrid vehicle, the battery pack including a plurality of batteries, the battery management system including:

a first interface component in electrical communication with the battery pack;

a second interface component in selective electrical communication with the first interface component;

a circuit in electrical communication with the second interface component, the circuit adapted to measure a first parameter, defined as one of battery conductance and battery impedance, of each of the batteries of the battery pack and to compare the first parameter of a particular battery to the first parameter of the remaining batteries;

an output for signaling an operator if a result of the respective first parameters are not within a predetermined range;

a micro-processor;

a memory in electrical communication with the micro-processor;

an input in electrical communication with the micro-processor; and

an output in electrical communication with the microprocessor.

26. The battery management system of claim 25, wherein the battery management system is selectively in communication with a computer unit.

27. The battery management system of claim 25, wherein the battery management system is selectively in communication with a network.